

Amendment and Response

Applicant: Yung Yip et al.

Serial No.: 10/822,884

Filed: April 13, 2004

Docket No.: 10305US02

Title: STATIC DISSIPATIVE HOUSING FOR DATA CARTRIDGE CARRYING NON-TAPE
STORAGE MEDIUM

REMARKS

The following Remarks are made in response to the Non-Final Office Action mailed January 10, 2007, in which claims 1-20 were rejected.

With this Amendment, claims 9-15 have been cancelled without prejudice, and claims 1, 3, and 16 have been amended to clarify Applicants' invention.

Claims 1-8 and 16-20, therefore, remain pending in the application and are presented for reconsideration and allowance.

Claim Objection

Claim 3 is objected to because of the following informalities: The Examiner suggests that "the housing includes a static dissipative polymer" should be replaced with "the housing is formed of a static dissipative polymer."

With this Amendment, claim 3 has been amended to clarify that "the housing is formed of a static dissipative polymer," as suggested by the Examiner. Applicants, therefore, respectfully request that the objection to claim 3 be reconsidered and withdrawn.

Claims 10-13 are objected to because of the following informalities: The Examiner suggests that "wherein means for dissipating the static charge" in claims 10, 11, and 13 should be replaced with "wherein the means for dissipating the static charge"; and that "wherein dissipating the static charge" in claim 12 should be replaced with "wherein the means for dissipating the static charge".

With this Amendment, claims 10-13 have been cancelled without prejudice. The objection to these claims, therefore, is rendered moot.

Claim Rejections under 35 U.S.C. § 112

Claims 1-8, 10, and 16-20 are rejected under 35 U.S.C. 112, first paragraph, as failing comply with the enablement requirement. More specifically, the Examiner contends that the claims contain subject matter which was not described in the specification in such a way as to

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enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

With this Amendment, claim 10 has been cancelled without prejudice. The rejection of claim 10 under 35 U.S.C. 112, first paragraph, therefore, is rendered moot.

Applicants respectfully traverse the rejection of claims 1-8 and 16-20 under 35 U.S.C. 112, first paragraph, and submit that "a housing having a surface resistivity in a range of approximately 10^6 ohms/square to approximately 10^{12} ohms/square" is described in the Specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. For example, at page 14, lines 12-24, the Specification provides that:

In one embodiment, static dissipation of housing 32 is established by forming housing 32 of a thermal plastic material including a static dissipative polymer. More specifically, in one embodiment, housing 32 is formed of a material including at least one of polypropylene, polyethylene, polystyrene, nylon, polycarbonate, ABS, and acrylic, and a dissipative polymer. In one exemplary embodiment, housing 32 is formed of a material including polycarbonate, nylon, and a dissipative polymer. An example of such a material includes PermaStat® 399X-10739A available from RTP Company of Winona, Minnesota. In another exemplary embodiment, housing 32 is formed of a material including ABS resin and a dissipative polymer. An example of such a material includes Stat-Loy® A BK8-115 available from LNP Engineering Plastics Inc. of Exton, Pennsylvania.

In addition, at page 14, line 25 - page 15, line 2, the Specification provides that:

In another embodiment, static dissipation of housing 32 is established by forming housing 32 of a carbon-filled resin. More specifically, in one embodiment, housing 32 is formed of a material including at least one of ABS, polystyrene, polycarbonate, polypropylene, and nylon, and a carbon fiber or carbon powder. In one exemplary embodiment, housing 32 is formed of a material including polycarbonate and carbon powder. An example of such a material includes Stat-Kon® D-EP V-1 available from LNP Engineering Plastics Inc. of Exton, Pennsylvania.

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The Specification, therefore, identifies PermaStat, Stat-Loy, and Stat-Kon as specific examples of materials for the housing. Applicants note that as identified in the brochure entitled "PermaStat Compounds" by RTP Company, the PermaStat material "featur[es] a consistent surface resistivity of 10^{10} to 10^{11} ohms/square." In addition, as identified on page 3 of the brochure entitled "Stat-Kon: A Guide To LNP's Line Of Thermoplastic Composites For Electrostatic Dissipation" by LNP Engineering, Stat-Loy Anti-Static Composites are available in the 10^9 - 10^{12} ohms/sq. range, and Stat-Kon Dissipative Composites are available in the 10^6 - 10^9 ohms/sq. range. Thus, as described in the Specification, forming the housing of a material such as PermaStat, Stat-Loy, or Stat-Kon does enable "a housing having a surface resistivity in a range of approximately 10^6 ohms/square to approximately 10^{12} ohms/square."

Accordingly, Applicants respectfully request that the rejection of claims 1-8 and 16-20 under 35 U.S.C. 112, first paragraph, be reconsidered and withdrawn, and that claims 1-8 and 16-20 be allowed.

Claims 3-5 and 17 are rejected under 35 U.S.C. 112, first paragraph, in that the Examiner contends that the specification does not reasonably provide enablement for a housing having a surface resistivity in a range of approximately 10^6 ohms/square to approximately 10^{12} ohms/square.

Applicants respectfully traverse this rejection and submit that "a housing having a surface resistivity in a range of approximately 10^6 ohms/square to approximately 10^{12} ohms/square" is described in the Specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with the claims. For example, as described in the Specification at pages 14-15 and as outlined above, forming the housing of a material such as PermaStat, Stat-Loy, or Stat-Kon does enable "a housing having a surface resistivity in a range of approximately 10^6 ohms/square to approximately 10^{12} ohms/square."

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Accordingly, Applicants respectfully request that the rejection of claims 3-5 and 17 under 35 U.S.C. 112, first paragraph, be reconsidered and withdrawn, and that claims 3-5 and 17 be allowed.

Claim Rejections under 35 U.S.C. § 103

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albrecht et al. US Publication No. 2002/0159182 in view of Waggoner et al. US Publication No. 2004/0113129 and "STAT: Guide To LNP's Line Of Thermoplastic Composites For Electrostatic Dissipation" (STAT).

With this Amendment, claims 9-15 have been cancelled without prejudice. The rejection of these claims under 35 U.S.C. 103(a), therefore, is rendered moot.

With this Amendment, independent claims 1 and 16 have each been amended to clarify that "the housing is adapted to dissipate a static charge of the data cartridge."

With respect to the Albrecht, Waggoner, and STAT references, Applicants submit that these references, individually or in combination, do not teach or suggest a data cartridge as claimed in independent claim 1 or independent claim 16 including a housing adapted to dissipate a static charge of the data cartridge.

The Examiner recognizes that the Albrecht et al. Publication does not teach the housing being formed of materials having a surface resistivity in a range of 10^6 ohms/square to 10^{12} ohms/square, and suggests that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use static dissipative materials with a surface resistivity in a range of 10^6 ohms/square to 10^{12} ohms/square for the housing (Detailed Action, pages 5-6).

Applicants note that the Albrecht et al. Publication discloses a data storage cartridge having an data storage device, such as an encased magnetic disk drive assembly, supported and mounted in a cartridge shell (see, e.g., Abstract; Figs. 3 and 4). The Albrecht et al. Publication discloses that the data storage cartridge has a backing plate 70 electrically coupled to the data storage device by means of land 85 of flex cable 65, to a ground thereof, thereby forming an electrostatic discharge path from the data storage device to the backing plate and through the electrically semiconductive material to the alignment pins of the transfer station, which are

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electrically grounded (para. [0066]; see also Fig. 18). Thus, backing plate 70 of the data storage cartridge of the Albrecht et al. Publication provides an electrostatic discharge path for the data storage cartridge.

As backing plate 70 of the data storage cartridge of the Albrecht et al. Publication already provides an electrostatic discharge path, Applicants submit that forming the cartridge shell of the data storage cartridge of the Albrecht et al. Publication of a static dissipative material would not have been obvious for at least the reason that the data storage cartridge of the Albrecht et al. Publication already includes an electrostatic discharge path.

In addition, the Albrecht et al. Publication provides that backing plate 70 is formed of a semiconductive plastic material having electrical resistivity whereby, in one example, the material has sufficient embedded carbon to provide the electrical resistivity, comprising 10%-30% carbon filled plastic (para. [0066]). In one specific example, the Albrecht et al. Publication provides that the material is a carbon filled plastic comprising a 20% carbon filled polycarbonate, called "Stat-Kon DC-1004-FR" (para. [0066]).

Thus, the inventors of the Albrecht et al. Publication, fully aware of the Stat-Kon line of materials, chose not to form the cartridge shell of the data storage cartridge of a Stat-Kon material and chose only to form backing plate 70 of a Stat-Kon material. Since the inventors of the Albrecht et al. Publication, fully aware of the Stat-Kon line of materials, chose not to form the cartridge shell of the data storage cartridge of a Stat-Kon material, Applicants submit that the Albrecht et al. Publication actually teaches away from forming the cartridge shell of a static dissipative material. *A prima facie* case of obviousness may be rebutted by showing that the art, in any material respect, teaches away from the claimed invention. *In re Geisler*, 116 F.3d 1465, 1471, 43 USPQ2d 1362, 1366 (Fed. Cir. 1997). Thus, Applicants submit that forming the cartridge shell of the data storage cartridge of the Albrecht et al. Publication of a static dissipative material would not have been obvious.

In view of the above, Applicants submit that independent claims 1 and 16, and the dependent claims depending therefrom, are each patentably distinct from the Albrecht, Waggoner, and STAT references and, therefore, are each in a condition for allowance.

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Applicants, therefore, respectfully request that the rejection of claims 1-20 under 35 U.S.C. 103(a) be reconsidered and withdrawn, and that claims 1-8 and 16-20 be allowed.

Double Patenting

Claims 1-20 are rejected on the ground of non-statutory obviousness-type double patenting as being unpatentable over Albrecht et al. US Patent Application Publication No. 2002/0159182 in view of claims 1-5 of Hanzlik et al. US Patent No. 6,915,977.

Applicants respectfully traverse this rejection.

Applicants note that the application of the Albrecht et al. Publication includes the inventive entity of Thomas Robert Albrecht, San Jose, CA; John Ray Blair, Tucson, AZ; Allen Ronald Cox, Eastleigh, GB; David Michael Davis, Tucson, AZ; Paul Merrill Greco, Tucson, AZ; James Mitchell Karp, Tucson, AZ; and George G. Zamora, Vail, AZ, and is assigned to International Business Machines Corporation. The present application, however, includes the inventive entity of Yung Yip, Afton, MN; Gregory A. Laska, Woodbury, MN; Jason D. Hanzlik, Wahpeton, ND; and Leo W. Spsychalla, Cottage Grove, MN, and is assigned to Imation Corp.

As the Albrecht et al. Publication is the primary reference, and the present application and the application of the Albrecht et al. Publication are not by the same inventive entity, are not commonly owned, do not have at least one common inventor, and are not made as a result of activities undertaken within the scope of a joint research agreement, Applicants submit that the rejection of claims 1-20 on the ground of non-statutory obviousness-type double patenting as being unpatentable over Albrecht et al. US Patent Application Publication No. 2002/0159182 in view of claims 1-5 of Hanzlik et al. US Patent No. 6,915,977 is not proper. See, e.g., MPEP 804, Chart I-B; MPEP 804 I.B.1; MPEP 804 I.C; MPEP 804 II.B.1; MPEP 804, Form Paragraph 8.37. Applicants, therefore, respectfully request that this rejection of claims 1-20 under the judicially created doctrine of obviousness-type double patenting be reconsidered and withdrawn.

Claims 1-20 are provisionally rejected on the ground of non-statutory obviousness-type double patenting as being unpatentable over claims 1, 10, and 15-16 of copending Application No. 10/047,280 in view of claims 1-5 of Hanzlik et al. US Patent No. 6,915,977, and Claims 1-

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20 are provisionally rejected on the ground of non-statutory obviousness-type double patenting as being unpatentable over claims 1, 10, and 15-16 of copending Application No. 10/047,280 in view of Waggoner et al. US Publication No. 2004/0113129 and "STAT: Guide To LNP's Line Of Thermoplastic Composites For Electrostatic Dissipation" (STAT).

Concurrently with this Amendment, a terminal disclaimer in compliance with 37 CFR 1.321(c) has been filed to overcome the non-statutory double patenting rejection based on copending Application No. 10/047,280. Applicants submit that the filing of this terminal disclaimer is to obviate the rejection based on non-statutory double patenting and is not an admission of the propriety of the rejection.

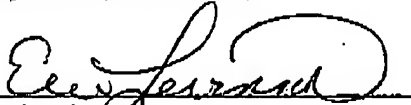
In view of the above, Applicants submit that the non-statutory double patenting rejection of claims 1-20 has been overcome. Applicants, therefore, respectfully request that the rejection of claims 1-20 under the judicially created doctrine of obviousness-type double patenting be reconsidered and withdrawn, and that claims 1-8 and 16-20 be allowed.

CONCLUSION

In view of the above, Applicants respectfully submit that pending claims 1-8 and 16-20 recite patentable subject matter, are in form for allowance, and are not taught or suggested by the cited references. Therefore, reconsideration and withdrawal of the rejections and allowance of claims 1-8 and 16-20 is respectfully requested.

The Examiner is invited to telephone the Applicants' representative at the below-listed number to facilitate prosecution of this application.

Respectfully submitted,

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